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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,599	07/28/2003	Steven T. Fink	240134US6YA	4260
22850	7590	06/08/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			PEAVEY, ENOCH E	
			ART UNIT	PAPER NUMBER

3676

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/627,599

Applicant(s)

FINK, STEVEN T.

Examiner

Enoch E Peavey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 13-17 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Garrigues et al., US No. 5,639,100 ("Garrigues").

Garrigues discloses a sealing apparatus, comprising a first part (13) having a first surface configured to cooperate with a second surface of a second part (10), a groove (17) formed in the first surface; a first o-ring (2b), configured to seal a first fluid in a first region from a second fluid in a second region (2a), while contained in the groove; and a second o-ring in continuous contact with the first o-ring while contained in the groove.

The first surface is substantially flat except for the groove (FIG. 2).

The o-rings are substantially circular in the azimuthal direction (FIG. 2).

The o-rings comprise substantially circular cross-sections (FIG. 2)

Claims 1 and 3 -5 are rejected under 35 U.S.C. 102(b) as being anticipated by Fang et al., US No. 6,123,337 ("Fang").

Fang discloses a sealing apparatus, comprising a first part having a first surface configured to cooperate with a second surface of a second part, a groove formed in the first surface; a first o-ring, configured to seal a first fluid in a first region from a second fluid in a second region, while contained in the groove; and a second o-ring in continuous contact with

the first o-ring while contained in the groove (FIG. 15).

The seal may be made from the group consisting of fluoroelastomer, nitrile, etc.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrigues in view of Fernandes et al., US No. 5,564,177 ("Fernandes").

Garrigues discloses substantially the same seal as applicant except for a groove comprising a dovetail shaped cross-section.

Fernandes discloses such a groove in order to further retain the o-ring.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Garrigues as taught by Fernandes in order to retain the o-ring.

Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrigues in view of Story et al., US No. 5,090,871.

Garrigues discloses substantially the same seal as applicant except for the seal comprising a leak check port, with a gas injection portion interposed between the seal created by the first and second o-ring.

Story teaches such an arrangement in order to detect the sealing condition.

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It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Garrigues as taught by story in order to detect the sealing condition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enoch E Peavey whose telephone number is 305 1977. The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on (703) 306-4115 The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Enoch Peavey  
Art Unit 3676

May 31, 2004

